

Brachygluta angelinii, a new species from Southern Italy*

(Insecta, Coleoptera, Pselaphidae)

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A new species of pselaphid beetles *Brachygluta angelinii*, spec. nov. from Southern Italy is described and illustrated. It is similar to the species of the *globulicollis* group (sensu Karaman, 1961) by the median pit of the pronotum clearly smaller than the lateral ones. It differs from all known *Brachygluta* species in the presence of two small teeth at the posterior margin of the metasternum, a pair of semicircular keeles on the fifth abdominal tergite and the extremely reduced armature of the internal sac of the aedeagus.

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In the material of Pselaphid beetles collected with light traps by my colleague Fernando Angelini in Basilicata (Southern Italy), I encountered numerous specimens of a large *Brachygluta* species. Their particular exoskeletal characters clearly characterize them as representants of a species new to science. It is so different from all so far known *Brachygluta* species that it is difficult to define its affinities.

Brachygluta angelinii, spec. nov.

Figs 1-3

Types. Holotype: ♂, Italy, Basilicata, Matera: Ponte Cagnolino (Lago San Giuliano) 100 m, 7.8.1992 (Zoologische Staatssammlung München). – Paratypes: same locality, 7.8.1992, 1♂ (Zoologische Staatssammlung München); 2♂♂ (coll. Bückle, Tübingen); 2♂♂ (coll. Brachat, Geretsried); 10♂♂ (coll. Angelini, Francavilla Fontana); 11♂♂ (coll. Sabella, Catania); 9.8.1992, 7♂♂ (coll. Sabella, Catania); 14.8.1992, 8♂♂ (coll. Angelini, Francavilla Fontana); 7♂♂ (coll. Sabella, Catania); 19.8.1992, 1♂ (coll. Sabella, Catania); 25.8.1992, 2♂♂ (coll. Sabella, Catania); 27.8.1992, 3♂♂ (Museo Storia Naturale Ginevra); 5.9.1992, 3♂♂ (coll. Sabella, Catania); 26.10.1992, 2♂♂ (coll. Sabella, Catania); 2♂♂, Potenza, Lago di Pignola 770 m, base *Salix*, 29.11.1992 (coll. Sabella, Catania). All material Angelini leg. with light traps.

Description

Length: 1.8-2.0 mm, winged, completely dark-reddish with slightly more clear palps. Pubescence not dense, formed by short golden hairs covering the whole body surface including antennae and legs. Further longer, more erected, dark yellowish hairs are found in particularly large number on the antennae, the epistoma, the posterior margin of the first abdominal tergite, between meso- and metasternum, at the base of the mesocoxal cavity and on the anterior margin of the first abdominal sternite.

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Head clearly wider (0.40-0.42 mm) than long (0.30-0.31 mm) and only slightly narrowed anteriorly (width of the frontal lobe: 0.24-0.25 mm). Eyes well developed but only slightly prominent, temples rounded and distinctly longer than the eyes. Between the eyes, only two interocular pits are found, while the major part of the *Brachygluta* species bears three pits. Pits large, densely pubescent and profound, separated by a slightly convex area of the cephalic surface similar in width to one interocular pit. Penultimate palp segment enlarged, but distally clearly narrower than the base of the large, ovoidal terminal segment. Surface of head shiny wherever no traces of punctuation are present. Antennae (Fig. 1) very long (1.10-1.15 mm), scapus and pedicellus slightly enlarged with respect to the funiculus segments. Scapus about 1.5 times longer than wide, pedicellus slightly longer than wide, segments 3, 4, 6, and 7 nearly of the same shape, about two times longer than wide, while segment 5 is more than two times longer than wide and segment 8 only slightly longer than wide. Antennal club is formed by three segments, all longer than wide but gradually enlarged from segment 9 towards segment 11; segment 11 only slightly shorter than segment 9 and 10 taken together and about 1.5 times longer than wide.

Pronotum slightly longer (0.42-0.45 mm) than wide (0.40-0.41 mm) and only slightly broader than head, the maximum width is just behind middle; its lateral margins are almost parallel posteriorly, but more clearly narrowed anteriorly. The pronotum bears three not very evident basal pits, the median one less noticeable than the two lateral ones, like in *Reichenbachia*. Amongst the *Brachygluta* of the Italian fauna only *B. globulicollis* has this characteristic. Tegument shiny without punctuation.

Elytra broader (0.76-0.80 mm) than long (0.66-0.68 mm), with a visible but not particularly prominent humeral callosity and two clearly visible basal pits on each side. The medial pit continues in a suture line that almost reaches the apex of the elitra, the lateral pit is extended into a discal line that reaches the distal half of the elitra. Surface covered by sparse big pores.

1st abdominal tergite very long (0.41 mm) and slightly narrowed posteriorly. Abdominal basal carinae very short, separated by a distance broader than half the width of the tergite. In ♂ the posterior margin of the 1st tergite is indented as shown in fig. 2. The disc of the 2nd tergite bears an elevated medial carina, which is larger posteriorly and progressively narrowed anteriorly. 5th sternite bears a pair of semicircular lateral keels (Fig. 2).

Legs very long and thin, their trochanters, femora and tibiae inarmed.

Metasternum not grooved, along its medial line there are two series of laterally bent hair. The posterior margin of the metasternum bears two ventrally directed small teeth (I do not know any *Brachygluta* species that has such a character).

The aedeagus (Fig. 3) is 0.23-0.25 mm long with short and stumpy parameres bearing two big subapical bristles and a large transparent apical lamella. Armature of internal sac very simple, formed by a big slightly medially curved tooth, accompanied by another smaller and poorly visible tooth.

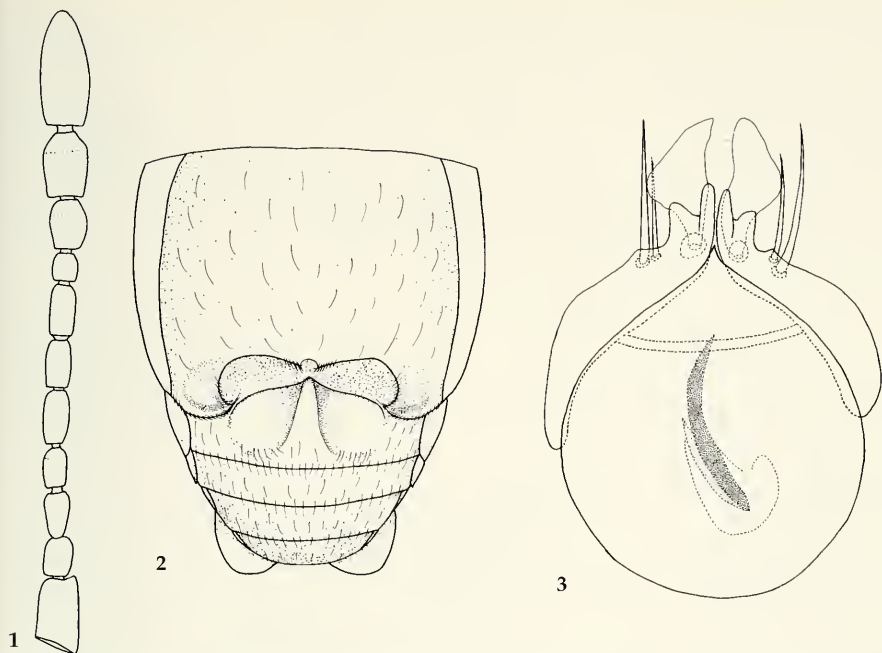
♀ unknown.

I dedicate this interesting species to Fernando Angelini, the well-known coleopterologist from Francavilla Fontana (Brindisi), who has contributed greatly to the knowledge of the Coleoptera fauna of Southern Italy.

Discussion

The genus *Brachygluta* Thomson, 1861 is distributed with 93 species (Newton & Chandler 1989: 42) mainly in the Holarctic region, in the Afrotropical region, and in Burma. The Palearctic region is the richest with 67 species (some of which are divided into numerous subspecies), distributed in whole Europe, throughout North Africa (except for Libya, probably due to lack of research) and in Asia including the Arabic peninsula as its southern limit, reaching Kazakistan to the north and Turkestan and Iran as its eastern border, despite Besuchet is presently describing (personal communication) a new species from Pakistan. No species are known from India, China and Japan.

Among the palaeartic *Brachygluta*, *B. angelinii*, spec. nov. is comparable only to those that have ♂♂ with modified abdominal tergites. Almost all these species have been assembled by Jeannel (1956) in the genus *Brachyglutodes* (today considered synonym of *Brachygluta*); most of them have been distributed to more or less homogenous and complete species groups: *haematica*, *ragusae*, *leprieuri*, *schueppeli*, *helferi*, *excavativentris* and *globulicollis*. The systematic assessment of all these groups needs revision.



Figs 1-3. *Brachygluta angelinii*, spec. nov., Holotype. 1. Right antenna. 2. Abdomen. 3. Aedeagus, dorsal view.

B. angelinii cannot be inserted within any of the above mentioned groups. However, due to its uniform reddish colour, long and thin antennae and legs and mainly for the median pit of the pronotum that is clearly smaller than the lateral ones, it is similar to the species of the *globulicollis*-group (sensu Karaman 1961), including the five subspecies of *B. globulicollis* (Mulsant et Rey, 1861), *B. colchica* (Saulcy, 1876) and *B. iranica* (Saulcy, 1876).

However, *B. angelinii* is distinctly different from all *Brachygluta* species in the presence of two small teeth at the posterior margin of the metasternum and a pair of semicircular lateral keels at the fifth abdominal sternite. Also the particular morphology of the aedeagus, mainly the reduced armature of the internal sac separates *B. angelinii* from all known *Brachygluta* species.

Additional field work in the Balcanic peninsula, in Turkey and in SW Asia, areas poorly studied until now, surely will permit the discovery of new species. The study of this additional material will contribute to a more complete understanding of the relations between the *Brachygluta* species and species groups.

Riassunto

L'autore descrive e figura una nuova specie di *Brachygluta*, *B. angelinii*, spec. nov. dell'Italia meridionale. La nuova specie è nettamente separata dalle congeneriche per alcuni caratteri esoscheletrici esclusivi (presenza sul margine posteriore del metasterno di due dentini rivolti in basso, margini laterali del quinto sternite addominale allargati a semicerchio) e per la morfologia dell'edeago (con parameri corti e tozzi ed armatura del sacco interno ridotta ad un dente ricurvo ed ad un altro più piccolo addossato al primo). *B. angelinii* spec. nov. è comunque raffrontabile con le *Brachygluta* del gruppo *globulicollis* (sensu Karaman, 1961) essenzialmente per la fossetta mediana del pronoto nettamente più piccola delle laterali.

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